

REMARKS

I. Status of the Claims

Claims 1-56 are pending in this application. The Examiner has withdrawn claims 1-29 from consideration. See *Restriction Requirement* at p. 2 (August 21, 2003).

II. Rejections under 35 U.S.C. § 103

In order to establish a *prima facie* case of obviousness, the Examiner must demonstrate that there is some suggestion or motivation, either in the cited references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify a reference. See M.P.E.P. § 2143. Moreover, "all claim limitations must be taught or suggested." M.P.E.P. § 2143.03.

Wisotzki

Claims 30-56 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,900,545 ("Wisotzki et al."). *Office Action* at pp. 3-4. Applicants respectfully traverse this rejection.

The Examiner's arguments mirror those set forth in the previous Office Action. Moreover, in response to Applicants' argument that Wisotzki does not teach heating the keratinous fiber, the Examiner states that "Wisotzki teaches applying the formulation as a hair treatment composition and teaches subsequent rinse. It is the examiner's position that water is sufficient to meet the heat treatment step as instantly claimed." *Id.* at p. 9.

Applicants respectfully disagree for the reasons of record and for the reasons set forth below. Wisotzki teaches treating hair with the preparations of Examples 1 to 7

followed by a rinse "with tap water." *Wisotzki* at col. 5, lines 65-68. *Wisotzki* does not mention the temperature of the tap water used to rinse the hair and thus, does not teach heating keratinous fibers. Even if, for the sake of argument, *Wisotzki* taught rinsing the hair with water having a temperature greater than room temperature, there is no evidence that such temperatures suitable for rinsing hair would result in the claimed protection and/or repair of the keratinous fiber.

"Whether the [Office] relies on an express or implicit showing [of motivation], it must provide particular findings related thereto." *In re Kotzab*, 217 F.3d 1365, 1370 (Fed. Cir. 2000). Without specific guidance from *Wisotzki* to heat keratinous fibers, whether by a sufficiently hot rinse or otherwise, this showing has not been presented here.

Applicants respectfully submit that a *prima facie* case of obviousness has not been established. Accordingly, Applicants respectfully request withdrawal of this rejection.

Koga

Claims 30-56 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,660,838 ("*Koga et al.*"). *Office Action* at pp. 4-6. Applicants respectfully traverse this rejection.

The Examiner maintains the previous rejection by stating that "Koga teaches a method for providing enhanced moisture retention and reducing excessive roughness and dryness of the hair." *Id.* at p. 9. The Examiner further notes that Koga tests the formulations at 35°C at Table 4. *Id.* at p. 10.

Applicants respectfully submit that Table 4 of Koga does not suggest heating the keratinous fiber as presently claimed. Table 4 provides data obtained from the experiments of Experimental Example 2. See *Koga* at cols. 5-7. Experimental Example 2 describes the preparation of moisture creams and measuring their "moisture retaining capability" by monitoring the rate of water evaporation. *Koga* at col. 5, lines 27-31. *Koga* describes allowing the moisture creams to stand under condition A (25°C and 38% relative humidity) or condition B (35°C and 40% relative humidity). *Id.* at col. 5, line 40 to col. 6, line 14. *Koga* then weighs the creams at 0 h, 24 h, 48 h, and 72 h. *Id.* at col. 6, lines 13-14. Nowhere, however, does Experimental Example 2 describe applying the cream to the keratinous fiber, let alone heating the keratinous fiber with the cream on it.

The remaining Examples do not describe the claimed invention either. Experimental Example 1 describes similar tests as Experimental Example 2 for aqueous solutions, as opposed to moisture creams. Again, no heated composition is applied to any keratinous fiber in this example – in fact, the example does not discuss application of the aqueous solutions to keratinous fibers at all. Examples 1-6 describe preparations applied to the skin. Example 7 describes a hair shampoo but completely fails to teach heating the keratinous fibers as claimed.

Based on these experiments, *Koga* merely provides a general teaching of retaining moisture by a composition that reduces the rate of water evaporation. *Koga* at cols. 3-7, Experimental Examples 1 and 2. *Koga* does not teach preserving a greater degree of or increasing the α -structure and/or tensile strength of the keratinous fiber.

Thus, there is no suggestion in Koga to protect the keratinous fiber from extrinsic damage or repair the keratinous fiber following extrinsic damage as claimed.

Accordingly, Applicants respectfully request withdrawal of this rejection.

Syed

Claims 30-56 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,641,477 ("Syed et al."). *Office Action* at pp. 6-8. Applicants respectfully traverse this rejection.

The Examiner maintains the previous rejection and refers to Table B, column 4 of Syed, asserting that Syed describes a composition that results in "less damaged hair that has *greater tensile strength* as that compared to hair that does not contain sugar." *Id.* at p. 10 (emphasis in original).

Applicants respectfully disagree that Syed teaches the claimed invention. Syed is directed to compositions for lanthionizing hair comprising a hydrogenated starch hydrosylate and/or a sugar. *Syed* at col. 2, lines 21-27. In the Background section, Syed teaches that conventional lanthionization processes damage the hair. *Id.* at col. 1, lines 36-37. According to Syed, such damage "cannot be corrected by applying conditioning agents to the hair subsequent to the relaxation process." *Id.* at col. 1, lines 41-43 (emphasis added). Because this damage cannot be corrected with conditioning agents, Syed proposes to solve this problem by providing a lanthionizing composition where "damage to the resulting hair fibers is also significantly decreased." *Id.* at col. 2, lines 1-3.

Thus, Syed does not suggest a method of protecting or repairing a keratinous fiber as claimed. If anything, Syed teaches that lanthionizing compositions damage the

hair. Although Syed's compositions allegedly reduce the amount of damage, they, nonetheless result in damage. Tables A and B of Syed refer to compositions prepared with any one of sucrose, sorbitol (*i.e.*, non-C3-C5 monosaccharides), or a hydrogenated starch hydrosylate. The tensile strength experiments all show damage to the hair via reduced tensile strength. Again, Syed describes compositions that allegedly result in a reduced amount of damage, but, nonetheless do cause damage.

In light of these comments, Syed actually teaches away from the claimed composition. One wishing to protect or repair keratinous fibers would not seek a composition that damages hair, even if the damage is reduced.

In contrast, Applicants' claimed invention relates to a method for protecting a keratinous fiber from or repairing a keratinous fiber following extrinsic damage. Unlike Syed, any damage to the keratinous fibers is not caused from Applicants' composition, but rather results from exposure to extrinsic factors, such as sun, chemical damage, and heat. *Specification* at p. 7, lines 1-2. Thus, Applicants' claimed method is distinct from that of Syed.

Finally, Applicants respectfully submit that rinsing with "tepid tap water" is not sufficient to heat the keratinous fiber, such that the claimed protection or repair is achieved. The dictionary meaning of "tepid" is "moderately warm" or "lukewarm." See Merriam-Webster's Collegiate® Dictionary, Tenth Edition, 2001. One of ordinary skill in the art would not use moderately warm or lukewarm tap water for heating. Thus, Syed does not teach the claimed heating step.

Because Syed teaches away from the claimed invention, a *prima facie* case has not been established. Accordingly, Applicants respectfully request withdrawal of this rejection.

III. Conclusion

Applicants respectfully request the reconsideration and reexamination of this application and the timely allowance of the pending claims. If the Examiner believes a telephone conference would be useful in resolving any outstanding issues, he or she is invited to call the undersigned at (617) 452-1621.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: November 21, 2003